

Complete Summary

GUIDELINE TITLE

Management of sore throat and indications for tonsillectomy. A national clinical guideline.

BIBLIOGRAPHIC SOURCE(S)

Scottish Intercollegiate Guidelines Network (SIGN). Management of sore throat and indications for tonsillectomy. A national clinical guideline. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network (SIGN); 1999 Jan. 23 p. (SIGN publication; no. 34). [74 references]

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SCOPE

DISEASE/CONDITION(S)

- Acute sore throat
- Tonsillitis

GUIDELINE CATEGORY

Diagnosis
 Management

CLINICAL SPECIALTY

Otolaryngology

INTENDED USERS

Advanced Practice Nurses
 Allied Health Personnel

Clinical Laboratory Personnel
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To present evidence-based recommendations for the management of acute and recurring sore throat and indications for tonsillectomy.
- To suggest a rational approach to the management of acute sore throat in general practice and provide reasonable criteria for referral for tonsillectomy.

Note: The guideline considers only tonsillectomy for recurring sore throat. It does not address tonsillectomy for suspected malignancy or as a treatment for sleep apnea, peritonsillar abscess, or other conditions.

TARGET POPULATION

Patients of all ages presenting with sore throat

INTERVENTIONS AND PRACTICES CONSIDERED

- Diagnosis of acute sore throat including clinical diagnosis, throat cultures and rapid antigen testing
- Management of acute sore throat including simple analgesics (aspirin), non-steroidal anti-inflammatory agents, and other analgesics (paracetamol with codeine)
- The use of antibiotics to relieve symptoms of acute sore throat, to prevent rheumatic fever and glomerulonephritis, to prevent suppurative conditions, and to prevent cross infection in sore throat
- Indications for tonsillectomy for recurring sore throat including referral criteria and otolaryngological assessment. (Note: The guideline does not address tonsillectomy for suspected malignancy or as a treatment for sleep apnea, peritonsillar abscess, or other conditions).

MAJOR OUTCOMES CONSIDERED

- Duration and severity of symptoms of sore throat
- Sequelae of GABHS (rheumatic fever, glomerulonephritis) and suppurative complications
- Cross infection rates
- Tonsillectomy rates

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The standard SIGN methodology was followed using searches of the Cochrane database, Medline, HealthSTAR and Embase for randomised controlled trials using the keywords: tonsillitis, tonsils, sore throat, pharyngitis, tonsillectomy. For epidemiology, microbiology and pathology, references were obtained using a broad strategy linking the terms ('tonsillitis' or 'pharyngitis') with ('epidemiology' or 'microbiology' or 'pathology'). The resulting set was combined with terms identifying meta-analysis, RCTs or other good quality clinical trials. The search was run on the following databases: Embase 1974-96, Science Citation Index (SCI SEARCH) 1987-96, Pascal 1974-96, US Technical Information Service 1964-96, Conference Papers Index 1973-96 Inside Conferences 1993-96.

The principal terms were also checked against the applied social sciences, social science citation index and sociological abstracts databases, but did not reveal any additional literature of interest. The evidence base for the guideline was updated during the course of the guideline development process to take into account newly published evidence.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Statements of Evidence

I a

Evidence obtained from meta-analysis of randomized controlled trials

I b

Evidence obtained from at least one randomized controlled trial.

II a

Evidence obtained from at least one well-designed controlled study without randomization.

II b

Evidence obtained from at least one other type of well-designed quasi-experimental study.

III

Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.

IV

Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

SIGN carries out comprehensive systematic reviews of the literature using customized search strategies applied to a number of electronic databases and the Internet. This is often an iterative process whereby the guideline development group will carry out a search for existing guidelines and systematic reviews in the first instance and, after the results of this search have been evaluated, the questions driving the search may be redefined and focused before proceeding to identify lower levels of evidence.

Once papers have been selected as potential sources of evidence, the methodology used in each study is assessed to ensure its validity. SIGN has developed checklists to aid guideline developers to critically evaluate the methodology of different types of study design. The result of this assessment will affect the level of evidence allocated to the paper, which in turn will influence the grade of recommendation it supports.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The process for synthesizing the evidence base to form graded guideline recommendations is illustrated in the companion document titled "SIGN 50: A Guideline Developer's Handbook." (Edinburgh [UK]: Scottish Intercollegiate Guidelines Network. [SIGN publication; no. 50], available from the SIGN website.

Evidence tables should be compiled, summarizing all the validated studies identified from the systematic literature review relating to each key question. These evidence tables form an important part of the guideline development record and ensure that the basis of the guideline development group's recommendations is transparent.

In order to address how the guideline developer was able to arrive at their recommendations given the evidence they had to base them on, SIGN has introduced the concept of considered judgement.

Under the heading of considered judgement, guideline development groups are expected to summarise their view of the total body of evidence covered by each evidence table. This summary view is expected to cover the following aspects:

- Quantity, quality, and consistency of evidence
- Generalisability of study findings
- Applicability to the target population of the guideline
- Clinical impact (i.e., the extent of the impact on the target patient population, and the resources need to treat them.)

Guideline development groups are provided with a pro forma in which to record the main points from their considered judgement. Once they have considered these issues, the group are asked to summarise their view of the evidence and assign a level of evidence to it, before going on to derive a graded recommendation.

The assignment of a level of evidence should involve all those on a particular guideline development group or subgroup involved with reviewing the evidence in relation to each specific question. The allocation of the associated grade of recommendation should involve participation of all members of the guideline development group. Where the guideline development group is unable to agree a unanimous recommendation, the difference of opinion should be formally recorded and the reason for dissent noted.

The recommendation grading system is intended to place greater weight on the quality of the evidence supporting each recommendation, and to emphasise that the body of evidence should be considered as a whole, and not rely on a single study to support each recommendation. It is also intended to allow more weight to be given to recommendations supported by good quality observational studies where randomised controlled trials (RCTs) are not available for practical or ethical reasons. Through the considered judgement process guideline developers are also able to downgrade a recommendation where they think the evidence is not generalisable, not directly applicable to the target population, or for other reasons is perceived as being weaker than a simple evaluation of the methodology would suggest.

On occasion, there is an important practical point that the guideline developer may wish to emphasise but for which there is not, nor is their likely to be, any research evidence. This will typically be where some aspect of treatment is regarded as such sound clinical practice that nobody is likely to question it. These are marked in the guideline as "good practice points." It must be emphasized that these are not an alternative to evidence-based recommendations, and should only be used where there is no alternative means of highlighting the issue.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Grades of Recommendations

Grade A: Requires at least one randomized controlled trial (RCT) as part of a body of literature of overall good quality and consistency addressing the specific recommendation (Evidence levels Ia, Ib).

Grade B: Requires the availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation (Evidence levels IIa, IIb, III).

Grade C: Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality (Evidence level IV).

Good Practice Points: Recommended best practice based on the clinical experience of the guideline development group.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

1. National open meeting discusses the draft recommendations of each guideline
2. Independent expert referees review the guideline in draft form
3. The SIGN Editorial Board reviews the guideline and summary of peer reviewers' comments

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

I. PRESENTATION

1. Emergency hospital admission

C* - Sore throat associated with stridor or respiratory difficulty is an absolute indication for admission to hospital

- If breathing difficulty is present, urgent referral to hospital is mandatory and attempts to examine the throat should be avoided (Good Practice Point, based on the clinical experience of the guideline development group).

2. Reasons for presentation in general practice

B - Practitioners should be aware of underlying psychosocial influences in patients presenting with sore throat.

II. DIAGNOSIS OF SORE THROAT

1. Clinical Diagnosis

B - Clinical examination should not be relied upon to differentiate between viral and bacterial sore throat

2. Throat culture

B - Throat swabs should not be carried out routinely in sore throat

3. Rapid antigen testing

B - Rapid antigen testing should not be carried out routinely in sore throat

III. MANAGEMENT OF SORE THROAT

Diagnosis of sore throat does not mean that an antibiotic has to be administered. Adequate analgesia will usually be all that is required.

1. Non-steroidal anti-inflammatory agents

B - Taking account of the increased risks associated with non-steroidal anti-inflammatory agents (NSAIDs), their routine use in management of sore throat is not recommended

2. Other analgesics

C - Paracetamol is the drug of choice for analgesia in sore throat, taking account of the increased risks associated with other analgesics

IV. ANTIBIOTICS IN SORE THROAT

The limited information available is insufficient to support a recommendation on the routine use of antibiotics in acute sore throat.

1. Antibiotics in acute sore throat

- In severe cases, where the practitioner is concerned about the clinical condition of the patient, antibiotics should not be withheld. Penicillin V 500 mg, four times daily for 10 days is the dosage used in the majority of studies. (Good Practice Point, based on the clinical experience of the guideline development group).
- Practitioners should be aware that infectious mononucleosis may present with severe sore throat with exudate and anterior cervical lymphadenopathy and should avoid prescription of ampicillin based antibiotics, including co-amoxiclav, as first line treatment. (Good Practice Point, based on the clinical experience of the guideline development group).

2. Antibiotics in recurrent sore throat

There is no evidence to support a recommendation on the use of antibiotics in recurrent non-streptococcal sore throat.

In cases of recurrent sore throat associated with group A beta-haemolytic streptococcus (not necessarily causal) the limited evidence of benefit available suggests that a 10-day course of antibiotic may reduce the number and frequency of attacks. However, diagnosis of group A beta-haemolytic streptococcus is not reliable.

3. Use of antibiotics to prevent rheumatic fever and glomerulonephritis

B - Sore throat should not be treated with antibiotics specifically to prevent the development of rheumatic fever or acute glomerulonephritis

4. Use of antibiotics to prevent suppurative complications

C - The prevention of suppurative complications is not a specific indication for antibiotic therapy in sore throat

5. Use of antibiotics to relieve symptoms

A - Antibiotics should not be used to secure symptomatic relief in sore throat

6. Use of antibiotics to prevent cross infection in sore throat

B - Antibiotics may prevent cross-infection with group A beta-haemolytic streptococcus in closed institutions (such as barracks, boarding schools) but should not be used routinely to prevent cross infection in the general community

V. MANAGEMENT OF SORE THROAT AND INDICATIONS FOR TONSILLECTOMY

1. Referral criteria for tonsillectomy

C - The following are recommended as reasonable indications for consideration of tonsillectomy in both children and adults, based on the current level of knowledge, clinical observation in the field and the results of clinical audit. Patients should meet all of the following criteria:

- sore throats are due to tonsillitis
- five or more episodes of sore throat per year
- symptoms for at least a year
- the episodes of sore throat are disabling and prevent normal functioning.

2. Otolaryngological assessment

C - A six month period of watchful waiting is recommended prior to tonsillectomy to establish firmly the pattern of symptoms and allow the patient to consider fully the implications of operation.

C - Once a decision is made for tonsillectomy, this should be performed as soon as possible, to maximise the period of benefit before natural resolution of symptoms may occur.

*Definitions:

Grades of Recommendations:

- A. Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation. (Evidence levels Ia, Ib)
- B. Requires the availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation. (Evidence levels IIa, IIb, III)
- C. Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality. (Evidence level IV)

Statements of Evidence

Ia

Evidence obtained from meta-analysis of randomized controlled trials

Ib

Evidence obtained from at least one randomized controlled trial.

IIa

Evidence obtained from at least one well-designed controlled study without randomization.

IIb

Evidence obtained from at least one other type of well-designed quasi-experimental study.

III

Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.

IV

Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The specific type of supporting evidence is explicitly identified in each section of the guideline.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

A guideline for management of acute and recurrent sore throat based on a systematic review of the literature has the potential to benefit patient care in addition to encouraging more efficient and effective use of health service resources. The guideline considers optimal management, such that patients are not denied effective treatment which may reduce long term morbidity and minimise unproductive time due to illness.

POTENTIAL HARMS

Side effects and complications associated with therapeutic measures: Non-steroidal anti-inflammatory agents are associated with gastrointestinal bleeding, nausea, vomiting, abdominal pain and diarrhea. Strong analgesics such as paracetamol with codeine are associated with nausea, disorientation and severe constipation. Simple analgesics such as aspirin may result in the development of Reye's syndrome in children.

Subgroups Most Likely to be Harmed:

Children are more likely than adults to develop Reye's syndrome as a result of using aspirin.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This report is not intended to be construed or to serve as a standard of medical care. Standards of medical care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge and technology advance and patterns of care evolve.

These parameters of practice should be considered guidelines only. Adherence to them will not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care aimed at the same results. The ultimate judgment regarding a particular clinical procedure or treatment plan must be made by the doctor in light of the clinical data presented by the patient and the diagnostic and treatment options available.

Significant departures from the national guideline as expressed in the local guideline should be fully documented and the reasons for the differences explained. Significant departures from the local guideline should be fully documented in the patient's case notes at the time the relevant decision is taken.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

It is intended that this guideline will be adopted after local discussion involving clinical staff and management. The Area Clinical Effectiveness Committee should be fully involved. Local arrangements may then be made for the derivation of

specific local guidelines to implement the national guideline in individual hospitals, units and practices and for securing compliance with them. This may be done by a variety of means including patient-specific reminders, continuing education and training, and clinical audit.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Scottish Intercollegiate Guidelines Network (SIGN). Management of sore throat and indications for tonsillectomy. A national clinical guideline. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network (SIGN); 1999 Jan. 23 p. (SIGN publication; no. 34). [74 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1999 Jan

GUIDELINE DEVELOPER(S)

Scottish Intercollegiate Guidelines Network - National Government Agency [Non-U.S.]

GUIDELINE DEVELOPER COMMENT

SIGN includes representatives of all the specialist medical Royal Colleges and their faculties in Scotland, nursing, dentists, pharmacy, professions allied to medicine and patient representation

SOURCE(S) OF FUNDING

National Government (Non-U.S.); Scottish Office Department of Health

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Guideline Development Group: Mr. William McKerrow (Chairman), Consultant Otolaryngologist; Mr. David Sim, Consultant Otolaryngologist; Dr. George Russell, Consultant Paediatrician; Ms. Susan Renton, Ward Sister; Dr. Barney Reilly, General Practitioner; Dr. Jill Morrison, General Practitioner; Mr. John Dempster, Consultant Otolaryngologist; Professor George Browning, Consultant Otolaryngologist; Mr. Robin Blair, Consultant Otolaryngologist; Dr. Ann Bisset, Senior Registrar in Public Health Medicine.

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

All members of the Scottish Intercollegiate Guidelines Network (SIGN) guideline development groups are required to complete a declaration of interests, both personal and non-personal. A personal interest involves payment to the individual concerned, e.g., consultancies or other fee-paid work commissioned by or shareholdings in the pharmaceutical industry; a non-personal interest involves payment which benefits any group, unit or department for which the individual is responsible, e.g., endowed fellowships or other pharmaceutical industry support. SIGN guideline group members should be able to act as independently of external commercial influences as possible, therefore, individuals who declare considerable personal interests may be asked to withdraw from the group. Details of the declarations of interest of any guideline development group member(s) are available from the SIGN executive.

GUIDELINE STATUS

This is the current release of the guideline.

This guideline will be considered for review in 2002.

Any updates to the guideline that result from the availability of new evidence will be noted on the [Scottish Intercollegiate Guidelines Network \(SIGN\) Web site](#).

GUIDELINE AVAILABILITY

Electronic copies: Available from the [Scottish Intercollegiate Guidelines Network \(SIGN\) Web site](#).

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Quick reference guide: management of sore throat and indications for tonsillectomy. Available electronically from the [Scottish Intercollegiate Guidelines Network \(SIGN\) Web site](#).
- SIGN 50: A guideline developer's handbook. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network, 2001 Feb. (SIGN publication; no. 50). Electronic copies available from the [SIGN Web site](#).

- Appraising the quality of clinical guidelines. The SIGN guide to the AGREE (Appraisal of Guidelines Research & Evaluation) guideline appraisal instrument. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network, 2001. Available from [SIGN Web site](#).
- A background paper on the legal implications of guidelines. Edinburgh (Scotland): Scottish Intercollegiate Guidelines Network.

NGC STATUS

This summary was completed by ECRI on July 28, 1999. The information was verified by the guideline developer as of August 19, 1999.

COPYRIGHT STATEMENT

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